

### **Remarks**

Claims 1 – 4 have been amended. Claims 5 and 6 have been cancelled. New claims 9 – 12 have been added. Support for new claims 9 – 12 is found on page 3 of the specification. Consequently, no new matter has been added as a result of this Amendment.

Claims 1-8 stand rejected under 35 USC 102(a & e) as anticipated by or, in the alternative, under 35 USC 103(a) as being obvious over Asrar et al (US Patent No. 6,660,690). In addition, claims 1-8 stand rejected under 35 USC 103(a) as being unpatentable over Sembo et al (US Patent No. 6,555,092). These rejections are respectfully traversed and reconsideration requested in light of the above amendments and the following remarks.

### **The Presently Claimed Invention**

The presently claimed invention relates to a household, liquid formulation for controlling household pests selected from the group consisting of German cockroaches, house flies, red imported fire ants, and bed bugs. The claimed formulation comprises an insecticide mixture of i) bifenthrin and ii) acetamiprid; and an aqueous medium.

In this regard, it is stressed that the Examples of the present application show the synergistic effects of the claimed formulations when used to control German cockroaches, house flies, red imported fire ants, and bed bugs.

Applicants submit that the prior art fails to disclose or suggest the synergistic effects of the present invention.

### **The Rejection in View of Asrar et al**

Asrar et al is directed to a method of preventing damage to seeds comprising treating such seeds with a composition comprising a pyrethroid and at least one other insecticide. The Examiner has rejected claims 1 - 8 as being anticipated by or obvious in view of Asrar et al on the basis that composition 76 discloses the combination of bifenthrin and acetamiprid with the pests cockroaches, termites, ants, fire ants, mosquitoes, and others disclosed at col. 23, line 13

through col. 24, line 3. The Examiner also notes that Asrar et al discloses actives in ratios from 1:1000 to 1000:1.

Preliminarily, Applicants note that Asrar et al fail to teach or suggest the claimed combination of bifenthrin and acetamiprid to control household pests selected from German cockroaches, house flies, red imported fire ants, and bed bugs. Asrar et al specifically indicate that “The target pest for the present invention is an adult or larvae of any insect or other pest that feeds on the seed, roots and/or shoots and foliage of the plant that is to be protected by the subject method.” Applicants submit that Asrar et al is not directed to controlling household pests as presently claimed.

Moreover, applicants note that Asrar et al disclose a very large list of “target pests”, which extend from col. 22, line 47 through col. 24, line 8 (approximately 150 pests). Finally, applicants also note that in Table 1 Asrar et al disclose fully 825 possible combinations of pyrethroids and other non-pyrethroid insecticides that allegedly provide “synergistic insecticidal activity”. Thus, Asrar et al assert that they have found that a laundry list of pests can be “synergistically” controlled with 825 combinations of materials, with each combination having ratios that range from 1:1000 to 1000:1.

Thus, Asrar et al allege that a great number of combinations of pyrethroid/non-pyrethroid insecticide combinations are synergistic for a great number of insect genera over a large ratio of combinations; however, the sole relevant example provided by Asrar et al shows the unpredictability of the art as well as the complete lack of supporting data for such allegation.

Moreover, it is noted that the only data provided by Asrar et al (in Table 3) shows that many of the mixtures of the sole mixture exemplified (tefluthrin + acephate) – all of which mixtures should be synergistic according the Asrar et al’s shotgun disclosure – do not exhibit synergy when tested against the sole insect species tested (black cutworm).

For convenience sake, Table 3 of Asrar et al is reproduced below:

TREAT- MENT	Tefluthrin (gm/100 kg seed)	Acephate (gm/100 kg seed)	STAND REDUCTION (% at 10 days)	Percent of Control	Synergy
RAZE	100		75	75	
RAZE	200		100	100	
RAZE	300		83	83	
ORTHENE		100	6.3	6.3	
ORTHENE		200	18.4	18.4	
RAZE/ ORTH	100	100	9.4	9.4	NO
RAZE/ ORTH	100	200	9.4	9.4	YES
RAZE/ ORTH	200	100	33	33	NO
RAZE/ ORTH	200	200	9.4	9.4	YES
RAZE/ ORTH	300	100	13.5	13.5	NO
RAZE/ ORTH	300	200	7.1	7.1	YES
UN- TREATED CONTROL	0	0	100		

It is noted that, according to Table 3, combinations of tefluthrin + acephate are not synergistic when applied at one 1:1 ratio (i.e., at 100 gm/kilogram each) but are synergistic when applied in the same ratio at higher amounts (i.e., at 200 gm/kilogram each). Similarly, it is noted that no synergy is present when such compounds are applied at 2:1 or 3:1 ratios (even though the specification states that such ratios result in synergistic effects); but synergy is alleged to occur when they are employed in a 3:2 ratio. Applicants urge that, in light of such data, Asrar et al – rather than rendering the present invention obvious – show the unpredictability of the subject matter involved.

Accordingly, applicants respectfully assert that Asrar et al fail to disclose or suggest the claimed invention. Thus, applicants respectfully request that the rejection be withdrawn.

### **The Rejection in View of Sembo**

The Examiner asserts that Sembo teach pyrethroids and neonicotinosis as pesticides that are combinable with nitroguanidine to control household pests – clothes moths, mosquitoes,

flies, cockroaches, ants, wasps, and termites. The Examiner concludes that a limited number of insecticides are shown, and it would be within the purview of the pesticide applicator to test the combinations, in order to optimize effects. Applicants respectfully submit that the rejection is in error and should be withdrawn.

Applicants have studied the disclosure of Sembo et al and submit that it fails to disclose or suggest the specific combination of bifenthrin and acetamiprid to control the claimed house pests. Applicants could not find in the disclosure of Sembo et al the claimed combination of bifenthrin and acetamiprid. Thus, applicants request that the Examiner specifically identify the portion of the disclosure of Sembo et al that such disclosure is made. Absent such disclosure, applicants respectfully submit that a proper rejection has not been made. Accordingly, applicants request that the rejection be withdrawn.

In light of the foregoing, reconsideration of the rejection of the present claims is respectfully requested and allowance thereof courteously solicited.

Respectfully submitted,

Dated: September 16, 2010

/Kevin J. Boland, Reg. No. 36,090/  
Kevin J. Boland  
Registration No.: 36,090  
215-299-6301

Please forward all correspondence to:

Patent Administrator  
FMC Corporation  
1735 Market Street  
Philadelphia, PA 19103